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Preface and Table of Contents

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Prevention and Control of Wildlife Damage

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United States Department of Agriculture
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Great Plains Agricultural Council
Wildlife Committee

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PREFACE

This handbook is a comprehensive reference of North American vertebrate species that can cause economic damage to resources or become a nuisance at various times and places. It is intended for use by extension agents and specialists, wildlife biologists, animal control officers, public health personnel, pest control operators, teachers and students of wildlife biology, and others who deal with wildlife damage problems.

Wildlife damage management is an essential part of contemporary wildlife management. During the past decade there has been significant research and development in this field. This publication is a condensation of current, research-based information on wildlife that cause problems and the control of damage that they cause. While it emphasizes prevention of damage as being desirable when possible, it does not neglect the necessity of population reduction in those cases where animals must be removed to solve problems. It stresses an integrated approach to damage management and includes treatment of materials and techniques such as exclusion, habitat modification, repellents, frightening stimuli, toxicants, fumigants, trapping, shooting, and others. All of the major vertebrate pesticides that are currently federally registered are included. Since pesticide registrations change from time to time and new materials become available, users are advised to check with appropriate federal and state authorities for updated information.

The handbook was originated by F. Robert Henderson at Kansas State University in the late 1960s. It originally was intended as a reference for extension agents in county offices, who received many inquiries regarding vertebrate pests and had little written information at their

disposal. The handbook was well received, and in 1978 it was revised and made available as a regional publication of the Great Plains Agricultural Council through the assistance of the Kansas Cooperative Extension Service. In 1984, the handbook was substantially revised by Robert M. Timm at the University of Nebraska-Lincoln. Over 8,900 copies of the latest addition were sold and it became the leading reference in the field of wildlife damage management.

This 1994 edition is again a significant revision of the previously available edition. In most cases, previously existing chapters were revised by their original authors. Twenty-three new authors were requested to revise chapters for which retirement, change of position, or other factors precluded original authors from participating. Seventeen new species chapters were added to expand the scope of the handbook to include all North American wildlife species that cause damage and nuisance problems. The sections on federally registered vertebrate pesticides, pesticide labels, and supplies and materials were completely revised to provide the most current information available. The handbook is now available as a two volume set in three-ring binder format and also on CD-ROM to provide adequate storage of the information and yet facilitate photocopying and reprinting.

Inclusion of any product or company names does not constitute endorsement by the University of Nebraska Cooperative Extension, US Department of Agriculture-Animal and Plant Health Inspection Service-Animal Damage Control (USDA-APHIS-ADC), Great Plains Agricultural Council, or organizations represented by individual authors. Similarly, exclusion of any product or company name does not constitute criticism.

We thank the Wildlife Committee of the Great Plains Agricultural Council for the opportunity to serve as editors of this edition. It has been a pleasure to work with all of the authors, who have contributed generously of their time and expertise. We thank each of them, as well as the organizations and agencies they represent, for helping make this revised edition a reality. We are grateful to **James E. Miller** of the Natural Resources and Rural Development Unit of the Extension Service, US Department of Agriculture, Washington, DC, for his assistance in obtaining funding for development of this revision. Thanks are due to **Bobby R. Acord** of USDA-APHIS-ADC, which funded a major portion of the costs of developing this revision.

Sarah K. Disbrow served as assistant editor and spent hundreds of hours helping to smooth rough edges on the chapter manuscripts and ensure consistency of style.

Anne M. Moore typeset the handbook, squeezing this large additional chore into her regular duties in the Department of Communications and Computing Services at the University of Nebraska. We appreciate her efforts and are grateful for her patience in dealing with what seemed to be endless corrections, additions, and revisions.

Jan R. Hygnstrom, Dallas R. Virchow, Kurt C. VerCauteren, and Susan B. Lembezeder spent many hours reviewing the early drafts of the handbook chapters. Thanks are also due to the USDA-APHIS-ADC employees and other specialists who reviewed individual chapters at the request of the authors or editors.

The late **Charles W. Schwartz** graciously allowed us to use the wildlife illustrations from his books *The Wild Mammals of Missouri* revised edition, and *Charles W. Schwartz*:

Wildlife Drawings. His illustrations are copyrighted by the Missouri Department of Conservation and/or the University of Missouri Press. His unique talents will be greatly missed.

René J. Lanik and Clint E.

Chapman contributed their artistic talents by providing illustrations for several chapters, the binder cover design, and advertising layout.

Emily Oseas Routman provided several illustrations in 1984 that were used again in this most recent edition. She also drew the prairie dog that appears on the cover of the handbook and most advertising materials.

David A. Thornhill developed all species distribution maps and provided illustrations for several chapters.

Diane K. Gronewald and Diana J. Smith handled most of the telephone calls and correspondence associated with marketing the handbook. In addition, they assisted with all sorts of miscellaneous tasks such as proofreading, preparing correspondence to authors, suggesting editorial changes, and

handling orders for the handbook.

As in any such publication, there is always room for additions and changes. We invite the users of this handbook to contribute suggestions for improvement so that the next revision will be even more useful.

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Prevention and Control of Wildlife Damage

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